

Docket No. 010077

Serial No. 09/775,894

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) An apparatus for wireless cellular telephone communication, comprising:

a) a plurality of slave transceivers spatially separated from one another within an enclosed region, each of the slave transceivers comprising an associated slave central processing unit (slave-CPU), each slave-CPU being adapted to control at least one adjustable operational parameter of its associated slave transceiver in response to at least one characteristic of a received reverse radio frequency (RF) telephone signal, and each slave transceiver being adapted to:

- i) receive the reverse RF telephone signal;
- ii) process the received RF telephone signal based on at least one of the adjustable operational parameters; and
- iii) generate a reverse slave telephone signal; and

b) a master transceiver coupled to the plurality of slave transceivers, the master transceiver being adapted to:

- i) convey setting signals to the plurality of slave transceivers so as to set the adjustable operational parameters thereof;
- ii) receive and process the reverse slave telephone signals from the plurality of slave transceivers, so as to generate corresponding reverse master telephone signals; and
- iii) convey the reverse master telephone signals to at least one base station transceiver subsystem (BTS) external to the region; and

wherein at least one of the slave-CPUs is adapted to vary a size of a coverage area provided by an associated slave transceiver, and the at least one slave-CPU varies the size of the coverage area provided by the associated slave transceiver responsive to instructions received from one of the following:

the at least one slave-CPU associated with the slave transceiver independent

Docket No. 010077

Serial No. 09/775,894

of the master transceiver;

the at least one slave-CPU associated with the slave transceiver in combination with the master transceiver; and

the master transceiver independent of the at least one slave-CPU associated with the slave transceiver.

BEST AVAILABLE COPY

2. (Previously Presented) The apparatus of Claim 1, wherein the plurality of slave transceivers comprises at least one diversity transceiver and at least one main transceiver, wherein the RF telephone signals received by the diversity transceivers are substantially different from the RF telephone signal received by the main transceivers.

3. (Original) The apparatus of Claim 1, further comprising a management unit adapted to convey instructions to the plurality of slave-CPUs to set at least one of the adjustable operational parameters of at least one of the slave transceivers to initial values.

4. (Previously Presented) The apparatus of Claim 3, wherein the master transceiver is coupled to the BTSs and adapted to:

- a) receive and process forward RF telephone signals from the BTSs;
- b) generate corresponding forward master telephone signals; and
- c) convey the forward master telephone signals to the plurality of slave transceivers;

and

wherein each slave transceiver is adapted to:

- a) receive the forward master telephone signals; and
- b) generate corresponding forward slave RF telephone signals; and

wherein each slave-CPU is adapted to:

- a) monitor the generated forward slave telephone signals; and
- b) adjust at least one of the operational parameters from an initial value in

Docket No. 010077

Serial No. 09/775,894

response to the generated forward slave telephone signals.

5. (Previously Presented) The apparatus of Claim 4, wherein the slave-CPU is further adapted to adjust at least one of the operational parameters from an initial value in response to the generated reverse slave telephone signals.

6. (Original) The apparatus of Claim 4, wherein the master transceiver comprises a master-CPU which is adapted to monitor at least some of the slave-CPUs and, in response to the slave-CPUs and to initial instructions received from the management unit, to vary at least one of a group comprising a number of BTSs communicating with the master transceiver and at least one channel parameter of each BTS.

7. (Currently Amended) A method for wireless cellular telephone communication, comprising:

a) positioning a plurality of slave transceivers within an enclosed region, at least one of the slave transceivers comprising a slave central processing unit (slave-CPU), at least one of the slave-CPUs being a controlling slave-CPU adapted to control an adjustable operational parameter of the slave transceiver that comprises the controlling slave-CPU;

b) receiving, within one of the plurality of slave transceivers, a reverse radio frequency (RF) telephone signal; and

c) controlling, in the receiving slave transceiver, the adjustable operational parameter of the receiving slave transceiver in response to a characteristic of the reverse RF telephone signal; and

wherein at least one of the slave-CPUs is adapted to vary a size of a coverage area provided by an associated slave transceiver, and the at least one slave-CPU varies the size of the coverage area provided by the associated slave transceiver responsive to instructions received from one of the following:

the at least one slave-CPU associated with the slave transceiver independent of the master transceiver;

Docket No. 010077

Serial No. 09/775,894

the at least one slave-CPU associated with the slave transceiver in combination with the master transceiver; and

the master transceiver independent of the at least one slave-CPU associated with the slave transceiver.

8. (Original) The method of Claim 7, wherein the adjustable operation parameter is the gain of an amplifier within the slave transceiver.

9. (Currently Amended) The method of Claim 7, further comprising;

- a) generating an alternative frequency (AF) reverse slave telephone signal in the receiving slave transceiver in response to the reverse RF telephone signal;
- b) receiving the AF reverse slave telephone signal in a master transceiver;
- c) in the receiving master transceiver in which the reverse slave telephone signals were received, frequency converting the received AF reverse slave telephone signal to an RF reverse master telephone signal; and
- d) conveying the reverse master telephone signal to a base station transceiver subsystem (BTS) external to the region.

10. (Original) The method of Claim 9, further comprising;

- a) conveying a setting signal from the receiving master transceiver to the receiving slave transceiver; and
- b) in response to the conveyed setting signal, adjusting, at least one operational parameter of the receiving slave transceiver.

11. (Previously Presented) The method of Claim 7, wherein the plurality of slave transceivers comprises at least one diversity transceiver and at least one main transceiver, the slave transceivers and the diversity transceiver being located such that the RF telephone signal received by the diversity transceivers is substantially different from the RF telephone signal received by the main transceivers.

Docket No. 010077

Serial No. 09/775,894

12. (Currently Amended) The method of Claim 7, further comprising:

- a) receiving an instruction in a slave-CPUs from a management unit; and
- b) in the receiving slave-CPU, setting at least one adjustable operational parameter of the slave transceivers comprising the receiving slave-CPU to initial values in response to the received instruction.

FACT AVAILARIF COPY

13. (Previously Presented) The method of Claim 12, and comprising:

- a) receiving in the forward master RF telephone signals from the BTS;
- b) generating forward master AF telephone signals in response to the received forward master RF telephone signals;
- c) conveying the forward master telephone signals to the plurality of slave transceivers;
- d) in the plurality of slave transceivers, receiving the forward master AF telephone signals;
- e) in the plurality of slave transceivers, generating forward slave RF telephone signals in response to the received forward master AF telephone signals;
- f) monitoring the corresponding forward slave RF telephone signals in each of the slave transceivers; and
- g) varying at least one of the operational parameters of each of the slave transceivers from their initial values, in response to the forward slave RF telephone signals and reverse slave RF telephone signals.

14. (Original) The method of Claim 13, wherein the master transceiver comprises a master-CPU which is adapted to monitor at least some of the slave-CPUs and, in response to the monitored slave-CPUs and in response to initial instructions received from the management unit, to vary at least one BTS communicating with the master transceiver and at least one channel parameter of the varied BTSSs.

15. (Currently Amended) An apparatus for wireless cellular telephone communication, comprising:

Docket No. 010077

Serial No. 09/775,894

- REJECT ANY IF COPY**
- a) a first plurality of slave transceivers which are spatially separated from one another within an enclosed region, each of which slave transceivers is adapted to receive a reverse radio frequency (RF) telephone signal generated by a mobile transceiver within the region and to process the RF telephone signal, based on at least one adjustable operational parameter, so as to generate a reverse slave telephone signal, each of the slave transceivers comprising an associated slave central processing unit (slave-CPU) which is adapted to control at least one of the adjustable operational parameters of the slave-CPU's associated slave transceiver in response to at least one characteristics of the reverse RF telephone signal; and
 - b) a second plurality of master transceivers, which are coupled to receive and process the reverse slave telephone signals from the first plurality of slave transceivers so as to generate corresponding reverse master telephone signals, and to convey the reverse master telephone signals to a third plurality of base station transceiver subsystems (BTSSs) external to the region, and which are adapted to convey setting signals to the first plurality of slave transceivers so as to set the adjustable operational parameters thereof; and

wherein at least one of the slave-CPUs is adapted to vary a size of a coverage area provided by an associated slave transceiver, and the at least one slave-CPU varies the size of the coverage area provided by the associated slave transceiver responsive to instructions from received one of the following:

the at least one slave-CPU associated with the slave transceiver independent of the master transceiver;

the at least one slave-CPU associated with the slave transceiver in combination with the master transceiver; and

the master transceiver independent of the at least one slave-CPU associated with the slave transceiver.

16. (Original) The apparatus of Claim 15, wherein each of the master transceivers comprises a switch and a third plurality of gain elements and a master-CPU, wherein the master-CPU of each master transceiver is adapted to operate the switch and the third plurality of gain elements of the associated master transceiver so that the associated master transceiver communicates via the third plurality of gain elements with at least one of the

Docket No. 010077

Serial No. 09/775,894

third plurality of BTSs.

17. (Original) The apparatus of Claim 16, wherein each of the master transceivers is adapted to adjust a bandwidth of at least some of the slave transceivers responsive to the number of BTSs being communicated with via the third plurality of gain elements.

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Canceled)

AVAILABLE COPY

ST